

REMARKS

Claims 1-32 are pending in the application, claims 1-32 having been amended. Support for the amendments can be found in original claims 1-32 and in the specification at, e.g., page 12, line 23, to page 13, line 23; and page 37, line 18, to page 38, line 20. These amendments add no new matter.

Response to Restriction Requirement

In response to the requirement for restriction, applicants elect Group I, drawn to a pharmaceutical composition comprising and antibody that binds to AILIM or a portion thereof. The election is made with traverse.

Original claims 1-32 were directed to pharmaceutical compositions for the treatment or prevention of specific diseases or conditions. The Examiner divided the claims into six restriction groups based upon the active ingredients contained in the compositions. As amended, all of the claims are now directed to methods of treating or preventing the specific diseases or conditions by administering to a subject a composition containing a substance that modulates signal transduction mediated by AILIM. Specific embodiments of active ingredients used in the claimed methods are recited in dependent claims.

In light of the amendments to the claims to recite methods of treatment and prevention, applicants respectfully request that the Examiner withdraw the requirement for restriction. As amended, each of the claims recites an administration step that carries patentable weight. Given the overlapping nature of the compositions used to treat or prevent the specific diseases and conditions, prosecution will be facilitated by the simultaneous examination of all of the claims. Accordingly, applicants request that the Examiner rejoin all of the claims for examination.

CONCLUSION

Applicants request that the claims be examined. Attached hereto is a marked-up version of the changes made by the current amendment.

Applicant : Katsunari Tezuka et al.
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Please apply any charges or credits to Deposit Account No. 06-1050, referencing attorney docket number 14539-005001.

Respectfully submitted,

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Jack Brennan
Jack Brennan
Reg. No. 47,443

Fish & Richardson P.C.
225 Franklin Street
Boston, Massachusetts 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

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“Version With Markings to Show Changes Made”

In the Claims:

Claims 1-32 have been amended as follows:

1. (Amended) A method of [pharmaceutical composition for] preventing[, or treating[, or prophylaxis of] arthrosis in a subject, the method comprising administering to the subject a composition comprising (a) a substance that modulates [having an activity in modulating] signal transduction mediated by AILIM, and (b) a pharmaceutically acceptable carrier, wherein the composition comprises an amount of the substance effective to prevent or treat arthrosis in the subject.

2. (Amended) The method [pharmaceutical composition] of claim 1, wherein the substance inhibits [has an activity in inhibiting] proliferation of AILIM-expressing cells or inhibits [in inhibiting] production of a cytokine by AILIM-expressing cells.

3. (Twice Amended) The method [pharmaceutical composition] of claim 2 [1], wherein the cytokine is interferon γ [which is a cytokine produced by Th1 type T cells,] or interleukin 4 [which is a cytokine produced by Th2 type T cells].

4. (Twice Amended) The method [pharmaceutical composition] of claim 1, wherein the arthrosis is rheumatoid arthritis.

5. (Twice Amended) The method [pharmaceutical composition] of claim 1, wherein the arthrosis is osteoarthritis.

6. (Twice Amended) The method [pharmaceutical composition] of claim 1, wherein the substance is a protein [substance].

7. (Amended) The method [pharmaceutical composition] of claim 6, wherein the protein [substance] is selected from the group consisting of:

- a) an antibody that [which] binds to AILIM or a portion thereof;
- b) a polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM;
- c) a fusion polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM and all [the whole] or a portion of a constant region of an immunoglobulin heavy chain; and
- d) a polypeptide that [which] binds to AILIM.

8. (Twice Amended) The method [pharmaceutical composition] of claim 1, wherein the substance is a non-protein substance.

9. (Amended) The method [pharmaceutical composition] of claim 8, wherein the non-protein substance is DNA, RNA, or a chemically synthesized compound.

10. (Amended) A method of [pharmaceutical composition for] preventing[, or treating[, or prophylaxis of] inflammation in a subject, the method comprising administering the subject a composition comprising (a) a substance that modulates [having an activity in modulating] signal transduction mediated by AILIM, and (b) a pharmaceutically acceptable carrier, wherein the composition comprises an amount of the substance effective to prevent or treat inflammation in the subject.

11. (Amended) The method [pharmaceutical composition] of claim 10, wherein the substance inhibits [has an activity in inhibiting] proliferation of AILIM-expressing cells or inhibits [in inhibiting] production of a cytokine by AILIM-expressing cells.

12. (Amended) The method [pharmaceutical composition] of claim 11, wherein the cytokine is interferon γ [which is a cytokine produced by Th1 type T cells,] or interleukin 4 [which is a cytokine produced by Th2 type T cells].

13. (Twice Amended) The method [pharmaceutical composition] of claim 10, wherein the subject has [inflammation is] hepatitis.

14. (Twice Amended) The method [pharmaceutical composition] of claim 10, wherein the substance is a protein [substance].

15. (Amended) The method [pharmaceutical composition] of claim 14, wherein the protein [substance] is selected from the group consisting of:

- a) an antibody that [which] binds to AILIM or a portion thereof;
- b) a polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM;
- c) a fusion polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM and all [the whole] or a portion of a constant region of an immunoglobulin heavy chain; and
- d) a polypeptide that [which] binds to AILIM.

16. (Twice Amended) The method [pharmaceutical composition] of claim 10, wherein the substance is a non-protein substance.

17. (Amended) The method [pharmaceutical composition] of claim 16, wherein the non-protein substance is DNA, RNA, or a chemically synthesized compound.

18. (Amended) A method of [pharmaceutical composition for] preventing[, or treating[, or prophylaxis of] graft versus host reaction or [and] immune rejection accompanying graft versus host reaction or transplantation of a tissue or organ in a subject, the method comprising administering to the subject a composition comprising (a) a substance that modulates [having an activity in modulating] signal transduction mediated by AILIM, and (b) a pharmaceutically acceptable carrier, wherein the composition comprises an amount of the substance effective to prevent or treat graft versus host reaction or immune rejection accompanying graft versus host reaction or transplantation of a tissue or organ in the subject.

19. (Amended) The method [pharmaceutical composition] of claim 18, wherein the substance inhibits [has an activity in inhibiting] proliferation of AILIM-expressing cells or inhibits [inhibiting] production of a cytokine by AILIM-expressing cells.

20. (Amended) The method [pharmaceutical composition] of claim 19, wherein the cytokine is interferon γ [which is a cytokine produced by Th1 type T cells,] or interleukin 4 [which is a cytokine produced by Th2 type T cells].

21. (Twice Amended) The method [pharmaceutical composition] of claim 18, wherein the substance is a protein [substance].

22. (Amended) The method [pharmaceutical composition] of claim 21, wherein the protein [substance] is selected from the group consisting of:

- a) an antibody that [which] binds to AILIM or a portion thereof;
- b) a polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM;
- c) a fusion polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM and all [the whole] or a portion of a constant region of an [in] immunoglobulin heavy chain; and
- d) a polypeptide that [which] binds to AILIM.

23. (Twice Amended) The method [pharmaceutical composition] of claim 18, wherein the substance is a non-protein substance.

24. (Amended) The method [pharmaceutical composition] of claim 23, wherein the non-protein substance is DNA, RNA, or a chemically synthesized compound.

25. (Amended) A method of [pharmaceutical composition for] preventing or treating an immune response triggered by a foreign antigen or an autoantigen in a subject, the method

comprising administering to the subject a composition comprising (a) a substance that modulates [having an activity of controlling] signal transduction mediated by AILIM, and (b) a pharmaceutically acceptable carrier, wherein the composition comprises an amount of the substance effective to prevent or treat an immune response triggered by a foreign antigen or an autoantigen in the subject.

26. (Amended) The method [pharmaceutical composition] of claim 25, wherein the immune response comprises [is] production of an antibody against the foreign antigen or the autoantigen, cell proliferation, or production of a cytokine.

27. (Twice Amended) The method [pharmaceutical composition] of claim 25, wherein the substance inhibits [has an activity in inhibiting] proliferation of AILIM-expressing cells or inhibits [in inhibiting] production of a cytokine by AILIM-expressing cells.

28. (Amended) The method [pharmaceutical composition] of claim 27, wherein the cytokine is interferon γ [which is a cytokine produced by Th1 type T cells,] or interleukin 4 [which is a cytokine produced by Th2 type T cells].

29. (Twice Amended) The method [pharmaceutical composition] of claim 25, wherein the substance is a protein [substance].

30. (Amended) The method [pharmaceutical composition] of claim 29, wherein the protein [substance] is selected from the group consisting of:

- a) an antibody that [which] binds to AILIM or a portion thereof;
- b) a polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM;
- c) a fusion polypeptide comprising all [the whole] or a portion of an extracellular region of AILIM and all [the whole] or a portion of a constant region of an immunoglobulin heavy chain; and
- d) a polypeptide that [which] binds to AILIM.

31. (Twice Amended) The method [pharmaceutical composition] of claim 25, wherein the substance is a non-protein substance.

32. (Amended) The method [pharmaceutical composition] of claim 31, wherein the non-protein substance is DNA, RNA, or a chemically synthesized compound.